

17 July 2009

## Survey on Water Supply and Sewerage. Year 2007

### **The volume of water consumed decreases 3.4% in 2007, as compared with the year 2006, and stands at 157 litres per inhabitant per day**

During the year 2007 in Spain, 4,969 cubic hectometres (Hm<sup>3</sup>) of water were supplied to the public urban supply networks, according to the *Survey on Water Supply and Sewerage*. Of this amount, 76% (3,778 Hm<sup>3</sup>) was registered as water distributed for household consumption, for the different economic sectors (industry, services and livestock), and for municipal consumption; said percentage indicated a decrease of 3.4% in comparison with the year 2006.

In the case of households, consumption of drinking water reached 2,544 Hm<sup>3</sup>, which represented 67.3% of total consumption, with a 2.7% decrease as compared with the year 2006.

Loss of water in the public urban supply network, due to leaks, breaks and breakdowns, reached 790 Hm<sup>3</sup>, that is, 15.9% of the total water supplied to said networks. The amount of water not registered, due to estimated consumption, measurement errors, fraud and other causes, reached 401 Hm<sup>3</sup>, accounting for 8.1% of the water supplied to said networks.

### **Water distributed**

Unit: cubic hectometres

Households	2,544	67.3
Economic sectors *	852	22.6
Municipal and other consumption	382	10.1
<b>TOTAL consumption</b>	<b>3,778</b>	<b>100.0</b>

\* This excludes the water used in irrigation agriculture, which, according to the Survey on the Use of Water in the Agricultural Sector 2007, recently published by the INE, reached 16,211 Hm<sup>3</sup>.

### **Origin of the water collected**

The origin of the water collected by the supply companies themselves, excluding purchases from third parties, was distributed into 63.3% from surface water, 32.6% from groundwater and 4.1% from other types of water (desalinated sea or brackish water).

## Average household water consumption

Average household water consumption stood at 157 litres per inhabitant per day for the year 2007. This average consumption was 4.3% lower than the 164 litres per inhabitant per day registered in 2006.

By Autonomous Community, Cantabria recorded the highest average consumption (189 litres), while País Vasco registered the lowest (125 litres).

## Water consumption by Autonomous Community

Unit: litres/inhabitant/day

	2007
Andalucía	158
Aragón	143
Asturias (Principado de)	185
Balears (Illes)	136
Canarias	154
Cantabria	189
Castilla y León	154
Castilla-La Mancha	163
Cataluña	151
Comunitat Valenciana	186
Extremadura	187
Galicia	143
Madrid (Comunidad de)	150
Murcia (Región de)	166
Navarra (Comunidad Foral de)	126
País Vasco	125
Rioja (La)	152
Ceuta and Melilla	135
<b>Spain</b>	<b>157</b>

### The unit value of water reached 1.29 euros/m<sup>3</sup>

The unit value of water (quotient between the value of the water supply rates plus the sewerage rates/levies for waste water and the volume of water distributed for consumption) in the year 2007 stood at 1.29 euros/m<sup>3</sup>.

The unit value of the water supply reached 0.75 euros/m<sup>3</sup>, while that of sewerage (sewage and waste water treatment) was 0.54 euros/m<sup>3</sup>.

By Autonomous Community, the highest values corresponded to Región de Murcia (1.95 euros/m<sup>3</sup>), Illes Balears (1.85) and Canarias (1.69). Conversely, Galicia (0.72), País Vasco (0.87) and Castilla-La Mancha (0.89) presented the lowest unit values.

### Unit value of water by Autonomous Community

Unit: euros/m<sup>3</sup>

	2007
Andalucía	1.11
Aragón	1.46
Asturias (Principado de)	0.92
Balears (Illes)	1.85
Canarias	1.69
Cantabria	0.93
Castilla y León	1.11
Castilla-La Mancha	0.89
Cataluña	1.56
Comunitat Valenciana	1.62
Extremadura	1.09
Galicia	0.72
Madrid (Comunidad de)	1.28
Murcia (Región de)	1.95
Navarra (Comunidad Foral de)	1.41
País Vasco	0.87
Rioja (La)	1.06
Ceuta and Melilla	0.94
<b>Spain</b>	<b>1.29</b>

## Methodological note

The INE conducts this survey annually, for the purpose of quantifying, in physical units, the activities related to the collection of water from the environment, and to water purification, supply and sewerage (sewage and waste water treatment). Likewise, information is collected on the unit costs of the water supply and sewerage services. The survey excludes the use of water in irrigation agriculture, which is studied in the *Survey on the Use of Water in the Agricultural Sector* (INE).

The total number of water management organisations or companies was 443 for reference year 2007. The frame of reference for the survey was constituted from the Central Companies Directory (CCD) compiled by the INE and the Local Organisations Directory managed by the Directorate General for Financial Coordination with Local Tax Offices, which belongs to the Ministry of the Treasury. Said framework is extended with those Municipal councils that carry out the direct management of water-related services.

The theoretical sample of units is obtained by selecting a quota within the strata formed in each Autonomous Community, according to the size of the population serviced. Once the water management unit is selected, and in order to avoid duplication, all of the municipalities serviced by the said unit are related. This includes, with a comprehensive criterion, those management units that service municipalities with more than 30,000 inhabitants, as well as a representation of the remaining municipality sizes. This yields coverage effectiveness indices, by Autonomous Community, of nearly 90% of the resident population.

For the variables related to the water supply in those municipalities serviced by management units that are not a part of the comprehensive stratum, the sampling data is corrected with a ratio estimator, using the resident population as an auxiliary variable.

As regards the sewerage variables (collection and treatment of waste water), the auxiliary variable for the ratio estimators is the data corresponding to the *equivalent population* (in agreement or not in agreement, according to the official definition), services in urban agglomerations, this information being provided by the Ministry of the Environment and Rural and Marine Affairs.

In terms of the indicators on water consumption per inhabitant per day, the survey has used as a population variable the Population Now Cast of Spain calculated from the census of 2001 at 1 January of each year.

As of the year 2007, inclusive, the survey questionnaire explicitly requests the value of the sewerage fee that, by delegation, the municipal councils and water-cycle management units invoice. This leads to a better estimation of the amounts invoiced for waste water treatment, which must be considered on comparing the water unit cost indicators with those of previous years.